



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,268	10/22/2001	Mark Kevitt Debe	52955US011	5103
32692	7590	05/08/2009		
3M INNOVATIVE PROPERTIES COMPANY				
PO BOX 33427				
ST. PAUL, MN 55133-3427				
EXAMINER				
RUTHKOSKY, MARK				
ART UNIT		PAPER NUMBER		
1795				
NOTIFICATION DATE		DELIVERY MODE		
05/08/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

LegalUSDocketing@mmm.com

LegalDocketing@mmm.com

UNITED STATES PATENT AND TRADEMARK OFFICE

---

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

---

*Ex parte* MARK KEVITT DEBE

---

Appeal 2009-0606  
Application 10/014,268  
Technology Center 1700

---

Decided:<sup>1</sup> May 6, 2009

---

Before PETER R. KRATZ, JEFFREY T. SMITH, and  
KAREN M. HASTINGS, *Administrative Patent Judges*.

HASTINGS, *Administrative Patent Judge*.

DECISION ON APPEAL

---

<sup>1</sup> The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, begins to run from the decided date shown on this page of the decision. The time period does not run from the Mail Date (paper delivery) or Notification Date (electronic delivery).

Appellant appeals under 35 U.S.C. § 134 from the Examiner's decision rejecting claims 31-33. We have jurisdiction under 35 U.S.C. § 6.

We REVERSE.

*Statement of the Case*

Appellant claims an apparatus for delivering gas at a controlled rate.

Representative independent claim 31 reads as follows:

31. An apparatus for delivering gas at a controlled rate comprising

a) an article comprising at least one containment means comprising pressurized gas-filled microbubbles, said gas being releasable on demand,

b) a means for causing release of said gas from said microbubbles by fracturing, and

c) a feedback and control means for releasing gas to an electrochemical power device at a controlled rate determined by a load.

The Examiner rejected claims 31 and 32 under 35 U.S.C. § 102(b) as anticipated by Pedrick (GB 1,439,440 published June, 1976). The Examiner also rejected claims 31-33 under 35 U.S.C. § 103(a) as being unpatentable over Monsler<sup>2</sup> in view of Ishiramu (US 5,432,710 published July, 1995) or Scheffler (US 5,009,067 published April, 1991).

*Issue*

The principal issue in this appeal is whether the Examiner has carried the burden of establishing a prima facie case in the rejections advanced on

---

<sup>2</sup>Monsler, M. "Glass Microshell Parameters for Safe Economical Storage and Transport of Gaseous Hydrogen" Fuel Cells for Transportation TOPTEC, Alexandria, VA, April 1, 1996.

appeal which turns on whether the Examiner has construed the claim limitations in accordance with 35 U.S.C. § 112, sixth paragraph.

*Principles of Law*

Any initial inquiry into the propriety of the Examiner's prior art rejection requires the determination of the precise scope of the claimed subject matter. *In re Paulsen*, 35 F.3d 1475, 1479 (Fed. Cir. 1994). Generally, we give the broadest reasonable interpretation to the terms in the claims consistent with the Appellant's specification. *In re Morris*, 127 F.3d 1048, 1054-55 (Fed. Cir. 1997).

When the claim terms are written in a "means-plus-function" format, however, they must be interpreted as limited to the corresponding structures described in the Specification or equivalents thereof consistent with 35 U.S.C. § 112, sixth paragraph. *In re Donaldson Co., Inc.*, 16 F.3d 1189, 1193 (Fed. Cir. 1994) (en banc). This interpretation is appropriate only if the claimed means-plus-function elements do not include sufficient structural limitations for performing the claimed functions, thus invoking § 112, sixth paragraph. *Al-Site Corp. v. VSI Int'l, Inc.*, 174 F.3d 1308, 1319 (Fed. Cir. 1999).

As stated in *Johnston v. IVAC Corp.*, 885 F.2d 1574, 1580 (Fed. Cir. 1989) (emphasis and citations omitted):

An element of a claim described as a means for performing a function, if read literally, would encompass any means for performing the function. But section 112 ¶ 6 operates to cut back on the types of means which could literally satisfy the claim language.

Our reviewing court in *B. Braun Med., Inc., v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997) also stated:

[S]tructure disclosed in the specification is ‘corresponding’ structure only if the specification or prosecution history clearly links or associates that structure to the function recited in the claim. This duty to link or associate structure to function is the quid pro quo for the convenience of employing § 112, ¶ 6.

In *Amel Corp. v. Info. Storage Devices, Inc.*, 198 F.3d 1374, 1382 (Fed. Cir. 1999), our reviewing court further stated that the particularity requirement of 35 U.S.C. § 112, second paragraph, requires that

the corresponding structure(s) of a means-plus-function limitation ... [is] disclosed in the written description in such a manner that one skilled in the art will know and understand what structure corresponds to the means limitation. Otherwise, one does not know what the claim means.

It has also been established that for means-plus-function claiming, all disclosed embodiments covered by the claim must be enabled. *Sitrick v. Dreamworks, LLC.*, 516 F.3d 993 (Fed. Cir. 2008).

#### *Analysis*

Independent claim 31 describes an apparatus for delivering gas at a controlled rate comprising a “means for causing release of said gas . . . by fracturing”; and a “feedback and control means for releasing gas to an electrochemical power device at a controlled rate determined by a load” (emphasis provided).

The resolution of the issues with respect to the rejections of appealed claim 31 as well as claims dependent therefrom under §§ 102(b) and 103(a) requires that the “means-plus-function” language in the claims must first be interpreted by giving the claim terms their broadest reasonable interpretation

consistent with the written description provided in Appellant's Specification as it would be interpreted by one of ordinary skill in this art. *Donaldson Co.*, 16 F.3d at 1192-95 (Fed. Cir. 1994) (en banc)("[T]he 'broadest reasonable interpretation' that an examiner may give means-plus-function language is that statutorily mandated in [35 U.S.C. § 112,] paragraph six.").

In view of the "means-plus-function" recitations, the claims must be interpreted with respect to whether any or all of the means-plus-function limitations specify a function without defining structure sufficient to satisfy that function. The interpretation of the claim limitations under 35 U.S.C. § 112, sixth paragraph is crucial since Appellant's arguments hinge on the interpretation of the specific means-plus-function limitations of independent claim 31.

We find no indication on the record that the Examiner has properly considered the "means-plus-function" limitations in claim 31 with respect to the strictures of 35 U.S.C. § 112, sixth paragraph, since the "corresponding structure" in the Specification and "equivalents" thereof with respect to the means-plus-function limitations have not been determined in a manner consistent with the requirements of this statutory provision before applying the references to the claims. (*See Ans.*, e.g., 3-8.)<sup>3</sup> *See, e.g., Donaldson*, 16 F.3d at 1195 ("[T]he PTO was required by statute to look to Schuler's specification and construe the 'means' language recited in the last segment

---

<sup>3</sup> In this respect, Appellant has not adequately identified the means-plus-function limitations or the structure(s) described in the Specification corresponding to each claimed function in summarizing the claimed invention as required by 37 C.F.R. § 41.37(c)(1)(v) (2004).

of claim 1 as limited to the corresponding structure disclosed in the specification and equivalents thereof.”)<sup>4</sup>

Therefore, the Examiner did not consider all of the claim limitations in making out the grounds of rejection under § 102(b) and 103(a). *See, e.g., In re Geerdes*, 491 F.2d 1260, 1262-63 (CCPA 1974) (in considering grounds of rejection “every limitation in the claim must be given effect rather than considering one in isolation from the others”); *cf. Donaldson*, 16 F.3d at 1195-97; *cf. In re Steele*, 305 F.2d 859, 862 (CCPA 1962) (a rejection based on prior art cannot be based on speculations and assumptions); see also, *e.g., In re Paulsen*, 30 F.3d at 1478-79 (Fed. Cir. 1994).<sup>5</sup>

#### *Conclusion/Order*

Accordingly, in the absence of appropriate consideration of the claim limitations under 35 U.S.C. § 112, sixth paragraph, the Examiner has not established a prima facie case of anticipation of claims 31 and 32 based on Pedrick, and has also not established a prima facie case of obviousness of claims 31-33 based on Monsler with Ishimaru or Scheffler.

Based on these circumstances, we are constrained to reverse the grounds of rejection of these claims under 35 U.S.C. §§ 102(b) and 103(a).

---

<sup>4</sup> *See also, e.g.,* MPEP §§ 2181-2185 (Rev. 6, Sept. 2007); *and*, “Rejections under 35 U.S.C. 112, second paragraph, when examining means (or step) plus function limitations under 35 U.S.C. 112, sixth paragraph” (memorandum signed September 2, 2008) at <http://www.uspto.gov/web/patents/memorandum.htm>

<sup>5</sup> Moreover, it is noted that Appellant argues patentability of the claimed invention based upon the means plus function limitations appearing in claim 31 (App. Br. 6).

Appeal 2009-0606  
Application 10/014,268

REVERSED

PL initial:  
sld

3M INNOVATIVE PROPERTIES COMPANY  
P.O. BOX 33427  
ST. PAUL, MN 55133-3427